



IDAHO DEPARTMENT
OF HEALTH AND WELFARE
DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83706-1255, (208) 334-0502

Philip E. Balt, Governor

June 30, 1995

CERTIFIED MAIL #P 875 704 095

Craig Southworth
Ash Grove Cement Company
230 Cement Road
Inkom, Idaho 83245-3351

RE: Ash Grove Cement Company (Inkom) - PM₁₀ SIP Operating Permit (Tier II)

Dear Mr. Southworth:

On April 4, 1995, the Division of Environmental Quality (DEQ) received your facility's Tier II operating permit application for the control of PM₁₀ emission at the facility. On May 4, 1995, the Tier II operating permit was amended with the submittal of supplemental data by Ash Grove Cement (AGC). On May 12, 1995, the application was determined administratively complete. A public comment period was held from May 25, 1995 to June 27, 1995. Based on the permit requirements for Tier II sources, the comments received, and the "Agreement between Ash Grove Cement, EPA, DEQ" (hereafter, the Agreement), enclosed please find the operating permit required by Action Item 1(a) of the Agreement.

However, there were substantial inconsistencies in the comment materials sent by Ash Grove Cement. DEQ staff did not have time to resolve many of the inconsistencies which may require the enclosed permit to be modified in accordance with Action Item 1(a) of the Agreement.

If you have any questions regarding the terms or conditions of the enclosed permit, please contact Brian R. Monson, Bureau Chief, Operating Permits Bureau, Permits and Enforcement, DEQ, at (208) 334-5898.

Sincerely,

Orville D. Green
Orville D. Green
Assistant Administrator
Permits and Enforcement

ODG\BPM\ABC:jrd...\permit\letters\agorv.1tr

Attachment

cc: G. Spinner, SEIRO
Source File
COF

STATE OF IDAHO
AIR POLLUTION
OPERATING PERMIT

GENERAL INFORMATION

PERMIT NUMBER

005 - 00004

AQCR

061

CLASS

A1

SIC

3241

ZONE

12

UTM COORDINATE (km)

397 6 4738 6

1. Permittee
Ash Grove Cement Company

2. PROJECT
PM₁₀ SIP Operating Permit

3. ADDRESS
230 Cement Road

TELEPHONE #
(208) 775-3351

COUNTY
Bannock

4. CITY
Inkom

STATE
Idaho

ZIP CODE
83245

5. PERSON TO CONTACT
Craig Southworth

TITLE
Process/Environmental Manager

6. EXACT PLANT LOCATION
Township 7S, Range 36, Section 28

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS
Production of Portland Cement

8. GENERAL CONDITIONS

This permit is issued according to the Rules for the Control of Air Pollution in Idaho, Section 16.01.01.400 and pertains only to emissions of air contaminants which are regulated by the State of Idaho and to the sources specifically allowed to be operated by this permit.

All documents, including, but not limited to, progress reports, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certifications shall contain a certification by a responsible official in accordance with IDAPA 16.01.01.123. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certification shall provide the signature and title of the responsible official and the date of the signature.

THIS PERMIT HAS BEEN GRANTED ON THE BASIS OF OPERATION AND DESIGN INFORMATION MADE AVAILABLE TO THE DEPARTMENT. CHANGES IN DESIGN, OPERATION, OR EQUIPMENT THAT RESULT IN ANY CHANGE IN THE NATURE OR AMOUNT OF EMISSIONS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.

Mark Bauer

ASSISTANT ADMINISTRATOR
DIVISION OF ENVIRONMENTAL QUALITY

ISSUED June 30, 1995
Date

EXPIRES June 30, 2000
Date

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

PERMIT NUMBER

Ash Grove Cement Company
 PM10 SIP Operating Permit
 Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Drilling, Blasting, and Dozing

1. SOURCE DESCRIPTION

1.1 Process Description

Holes are drilled into limestone for the placement of explosives. The explosives are detonated, and the blast loosens the rock so that a dozer can move the blasted material.

1.2 Control Description

Emissions associated with the drilling, blasting, and dozing of limestone are uncontrolled.

1.3 Equipment List

1.3.1 Drill

Manufacturer: Gardner Denver
 Model: RDC16B
 Serial Number: SN16C1261

1.3.2 Dozers

2. EMISSION LIMITS

2.1 Fugitive Emissions

2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651 and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall measure the following parameters:

- 3.1.1 Tons of rock blasted;
- 3.1.2 A report will be made on each blast performed;
- 3.1.3 Dozer operating hours per day

4. REPORTING REQUIREMENTS

4.1 The information requested in Section 3.1 of this permit shall be maintained on record by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
 EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 000004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Quarried Raw Materials Receiving, Crushing, and Storage

1. SOURCE DESCRIPTION

1.1 Process Description

Quarried clay, shale, and limestone is reduced in size by crushing and screening. Quarried clay, shale, and limestone is fed onto a feed pad that transfers the material to a jaw crusher for size reduction. The crushed raw material is transferred to the #1 screen by incline belts. Raw material that cannot be screened does not pass through the screen is reintroduced to the system by transferring it to a hammermill for crushing, and reconveying it to the screen. Material passing the screen is transferred to a cross country belt that either a) recycles the stockpiled rock through the entire crushing and screening process by reintroducing the material at the jaw crusher, or b) transfers it to belts which place the material in the raw silos from which it is conveyed to the raw mill.

1.2 Control Description

Emissions associated with the transport of limestone, clay, and shale from the front end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of the raw materials from the #1 incline belt to the #2 incline belt are controlled by a shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the raw materials from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher
Jaw Crusher to Incline Belt
#2 Incline Belt to Screen #1
Screen #1 to Cross Country Belt
Screen #1 to Hammermill
Hammermill to #1 Incline Belt
Belt C to Silo

1.3 Equipment List

1.3.1	Front End Loader	
1.3.2	Feeder (Feed Pad)	
1.3.3	Jaw Crusher -Size 160	
	Manufacturer:	Kue Ken
	Model:	Model 160
	Serial Number:	Serial No. 16016407
1.3.4	#1 Incline Belt	

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SOURCE

Quarried Raw Materials Receiving, Crushing, and Storage

- 1.3.5 #2 Incline Belt
- 1.3.6 #1 Screen
 - Manufacturer: Link Belt
 - Model: Model CA53
 - Serial Number: Serial No. CA25125
- 1.3.7 Hammermill
 - Manufacturer: Pennsylvania
 - Model: Model CB 1144
 - Serial Number: Serial No. 2460
- 1.3.8 Cross Country Belt
- 1.3.9 Belt B
- 1.3.10 Belt C
- 1.3.11 Discharge Chute

2. EMISSION LIMITS

2.1 Fugitive Emissions

- 2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall record the hours of operation per day of the water spray.
- 3.2 The Permittee shall record the tons of raw material handled by raw material receiving, crushing, and storage each day.
- 3.3 The Permittee shall record the hours of operation per day of raw material receiving, crushing, and storage.

4. OPERATING REQUIREMENTS

4.1 Process Rate

The process rate shall not exceed 142 tons of limestone, clay and shale per hour on a monthly average basis or 380,000 tons of limestone, clay and shale per year.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

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Ash Grove Cement Company
PM10 SIP Operating Permit
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005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Quarried Raw Materials Receiving, Crushing, and Storage

5. REPORTING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1, 3.2, and 3.3 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

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SOURCE

Iron Ore Receiving, Crushing, and Storage

1. SOURCE DESCRIPTION

1.1 Process Description

Iron ore from an outside source is belly/end dumped and stockpiled in the quarry. A front end loader transfers the stockpiled iron ore onto a feed pad for transfer to a jaw crusher. The iron ore is crushed and conveyed to the #1 screen. The screened iron ore is then conveyed to the iron ore silo for storage. From the silo, the iron ore is conveyed to the raw mill.

1.2 Control Description

Emissions associated with the transport of iron ore from the front end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of iron ore from the #1 incline belt to the #2 incline belt are controlled by a partially enclosed shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the iron ore from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher
Jaw Crusher to Incline Belt
#2 Incline Belt to Screen #1
Screen #1 to Cross Country Belt
Screen #1 to Hammermill
Hammermill to #1 Incline Belt
Belt C to Silo

1.3 Equipment Listing

Same equipment listed in Section 1.3 Quarried Raw Materials, Crushing, Receiving, and Storage.

2. EMISSION LIMITS

2.1 Fugitive Emissions

2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

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Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Iron Ore Receiving, Crushing, and Storage

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall record the hours of operation per day of the water spray.
- 3.2 The Permittee shall record the tons of iron ore handled by iron ore receiving, crushing, and storage each day.
- 3.3 The Permittee shall record the hours of operation per day of iron ore receiving, crushing, and storage.

4. OPERATING REQUIREMENTS

4.1 Process Rate

The process rate shall not exceed 118 tons of iron ore per hour on an average monthly basis or 4,000 tons of iron ore per year.

5. REPORTING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1, 3.2, and 3.3 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
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The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Silica Receiving, Crushing, and Storage

1. SOURCE DESCRIPTION

1.1 Process Description

Silica from an outside source is belly/end dumped and stockpiled in the quarry. A front end loader transfers the stockpiled silica onto a feed pad for transfer to a jaw crusher. The silica is crushed and conveyed to the #2 screen. Silica that cannot be screened is recycled through the system by transferring it to a cone crusher for crushing and reconveying it to the #2 screen. The silica passing the screen is conveyed by a cross country belt that either a) recycles the stock piled material through the entire crushing and screening process by reintroducing the crushed material at the feed pad, or b) transfers it to belts which place the material in the raw silos. From the raw silos, the silica is conveyed to the raw mill by a feed belt.

1.2 Control Description

Emissions associated with the transport of silica from the front end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of silica from the #1 incline belt to the #2 incline belt are controlled by a shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the silica from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

Feeder to Jaw Crusher
 Jaw Crusher to #1 Incline Belt
 #1 Incline Belt to #2 Incline Belt
 #2 Incline Belt to #3 Incline Belt
 #3 Incline Belt to Screen #2
 Screen #2 to Cross Country Belt
 Screen #2 to Cone Crusher
 Cone Crusher to #4 Incline Belt
 #4 Incline Belt to #2 Incline Belt
 Belt C to Silos

The following transfer points are controlled only by moisture retained by the silica from the water spray or residual moisture inherent in the rock:

Cross Country Belt to Belt B
 Belt B to Belt C
 Cross Country Belt to Discharge Chute
 Discharge Chute to Ground

ISSUED: June 30, 1995
 EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

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Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Silica Receiving, Crushing, and Storage

1.3 Equipment List

Same equipment listed in Section 1.3 Quarried Raw Materials Crushing, Receiving, and Storage with the exception that the following equipment shall be used instead of the #1 screen and hammermill listed in Section

1.3.1 #3 Incline Belt

1.3.2 #4 Incline Belt

1.3.3 #2 Silica Screen

Manufacturer: Hewitt Robins

Model: MS - 9

Serial Number: 1120

1.3.4 Cone Crusher

Manufacturer: Telesmith

Model: 48S Shop 8504

2. EMISSION LIMITS

2.1 Fugitive Emissions

2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record the hours of operation per day of the water spray.

3.2 The Permittee shall record the tons of silica handled by silica receiving, crushing, and storage each day.

3.3 The Permittee shall record the hours of operation per day of silica receiving, crushing, and storage.

4. OPERATING REQUIREMENTS

4.1 Process Rate

The process rate shall not exceed 96 tons of silica per hour on an average monthly basis, or 40,000 tons of silica per year.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

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Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Silica Receiving, Crushing, and Storage

5. REPORTING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1, 3.2, and 3.3 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Gypsum Receiving, Crushing, and Storage

1. SOURCE DESCRIPTION

1.1 Process Description

Gypsum from an outside source is belly/end dumped and stockpiled in the quarry. A front end loader transfers the stockpiled gypsum onto a feed pad for transfer to a jaw crusher. The gypsum is crushed and conveyed to the #1 screen. Gypsum that cannot be screened is recycled through the system by transferring it to a hammermill for crushing, and reconveying it to the #1 screen. The screened gypsum is then conveyed by a cross country belt to a gypsum belt that transfers it to a gypsum bin for storage. An overhead crane transfers the gypsum into the gypsum bin which feeds it to the cement mill for further processing.

1.2 Control Description

Emissions associated with the transport of gypsum from the front end loader to the feeder are controlled by a building open at one end. Emissions associated with the transport of gypsum from the #1 incline belt to the #2 incline belt are controlled by a shed covering the transfer point. All transfer points after the jaw crusher are controlled by water spray or by moisture retained by the gypsum from the water spray or residual moisture inherent in the rock. Emissions associated with the following transfer points are controlled by an enclosure:

- Feeder to Jaw Crusher
- Jaw Crusher to #1 Incline Belt
- #1 Incline Belt to #2 Incline Belt
- #2 Incline Belt to Screen #1
- Screen #1 to Cross Country Belt
- Screen #1 to Hammermill
- Hammermill to #1 Incline Belt
- Belt C to Silo

1.3 Equipment List

Same equipment listed in Section 1.3 Limestone Crushing, Receiving, and Storage with the addition of the following:

- 1.3.1 Gypsum Belt
- 1.3.2 Gypsum Bin
- 1.3.3 Overhead Crane

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 000004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Gypsum Receiving, Crushing, and Storage

2. EMISSION LIMITS

2.1 Fugitive Emissions

2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall record the hours of operation per day of the water spray.
- 3.2 The Permittee shall record the tons of gypsum handled by gypsum receiving, crushing, and storage each day.
- 3.3 The Permittee shall record the hours of operation per day of gypsum receiving, crushing, and storage.

4. OPERATING REQUIREMENTS

4.1 Process Rate

The process rate shall not exceed 159 tons of gypsum per hour on an average monthly basis or 21,000 tons of gypsum per year.

5. REPORTING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1, 3.2, and 3.3 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

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Inkom, Idaho

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The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Storage Piles

1. SOURCE DESCRIPTION

1.1 Process Description

Limestone (High and Low), gypsum, iron ore, silica, and cement kiln dust are stored in the quarry in piles. Coal is stored at the plant in a pile.

1.2 Control Description

Emissions from the limestone (High and Low), gypsum, iron ore, coal, silica, and cement kiln dust storage piles are uncontrolled.

2. EMISSION LIMITS

2.1 Fugitive Emissions

2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. OPERATING REQUIREMENTS

- 3.1. The limestone (high) and limestone (low) storage piles shall be limited to a footprint area of four (4) acres.
- 3.2. The gypsum storage pile shall be limited to a footprint area of one half (0.5) acres.
- 3.3. The iron ore storage pile shall be limited to a footprint area of four tenths (0.40) acres.
- 3.4. The coal storage pile shall be limited to a footprint area of one (1.0) acre.
- 3.5. The silica storage pile shall be limited to a footprint area of one (1.0) acre.
- 3.6. The active cement kiln dust storage pile shall be limited to a footprint area of one (1.0) acre.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

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SOURCE

Silo Withdrawal, Conveying, and Storage

1. SOURCE DESCRIPTION

1.1 Process Description

Limestone, silica, and iron ore are transferred from silo storage to Mill #4 (Raw Mill). Mill #4 processes the limestone, silica, and iron ore with water into a raw meal (slurry). Mill #3 may be used as a back up raw mill only when Mill #4 is not operating.

1.2 Control Description

Emissions associated with the transfer of limestone, silica, and iron ore from silo storage to the raw mill are controlled by being building enclosed. Emissions associated with the processing of limestone, silica, and iron ore are controlled by the water used in the process.

1.3 Equipment List

- 1.3.1 Silo Feeder
- 1.3.2 Feed Belt
- 1.3.3 Mill #4 (Raw Mill)
- 1.3.4 Mill #3 (Auxiliary Raw Mill)

2. EMISSION LIMITS

2.1 Fugitive Emissions

- 2.1.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall record the tons of limestone, silica, and iron ore transported to and processed by the raw mill daily.

4. OPERATING REQUIREMENTS

4.1 Processing Limit

The process rate of the raw mill shall not exceed fifty-three (53) tons of raw meal per hour on an average monthly basis or 450,000 tons of raw meal per year.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

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PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

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SOURCE

Silo Withdrawal, Conveying, and Storage

5. REPORTING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Section 3.1 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

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SOURCE

#1 and #2 Rotary Kilns

1. SOURCE DESCRIPTION

1.1 Process Description

The #1 and #2 rotary kilns process clinker for the production of portland cement. The raw materials used in this process include limestone, silica, iron ore, and shale. Five (5) fuels are used to fire the kilns: natural gas, used oil, petroleum coke, whole tire/tire derived fuel and coal. In the kilns the combustion gases flow countercurrent to the clinker flow and exit through the emission control equipment.

1.2 Control Description

Each kiln is controlled by a multiclone and electrostatic precipitator (ESP) in series. High temperatures and long residence time in the kilns have been demonstrated to create a destruction and removal efficiency (DRE) greater than 99.99% for organic compounds. The cement kiln process has shown that over 99% of the metals chemically recombine into the complex compounds that make up the matrix of clinker.

1.3 Equipment Specifications

1.3.1	#1 Kiln	
	Manufacturer	Allis Chalmers
	Speed	0.9 rotations per minute
	Rated Heat Capacity	7.7 MMBTU/Ton of clinker
	Burner Type	Horizontally fired
	Kiln Diameter	10.0 feet
	Kiln Length	200 feet
1.3.2	Operating Temperature,	
	Front/Back	3000/700°F
	#1 Kiln Multiclone	
1.3.2	Manufacturer	F.L. Smidth
	Efficiency	67.1% for particulates
	Pressure Drop	2 inches H ₂ O
1.3.3	#1 Kiln ESP	
	Manufacturer	Joy Western
	Efficiency	99.8% for particulates
	Gas Velocity	41.0 feet per second

ISSUED: June 30, 1995
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SOURCE

#1 and #2 Rotary Kilns

- | | | |
|-------|------------------------|---------------------------|
| 1.3.4 | #2 Kiln | |
| | Manufacturer | F.L. Smidth |
| | Speed | 1.3 rotations per minute |
| | Rated Heat Capacity | 6.8 MMBTU/Ton of clinker |
| | Burner Type | Horizontally fired |
| | Kiln Diameter | 9.5 feet |
| | Kiln Length | 320 feet |
| | Operating Temperature, | |
| | Front/Back | 3000/440°F |
| 1.3.5 | #2 Kiln Multiclone | |
| | Manufacturer | F.L. Smidth |
| | Efficiency | 75.8% for particulates |
| | Pressure Drop | 2 inches H ₂ O |
| 1.3.6 | #2 Kiln ESP | |
| | Manufacturer | Joy Western |
| | Efficiency | 99.4% for particulates |
| | Gas Velocity | 42.3 feet per second |

1.4 Stack Specifications

1.4.1 The #1 Kiln stack is designed to the following specifications:

- | | |
|------------------------------|-------------------------------------|
| Height | 74 feet |
| Exit dimensions | 7.0 feet by 4.0 feet |
| Average volumetric flow rate | 69,000 actual cubic feet per minute |
| Exit temperature | 400 to 550°F |

1.4.2 The #2 Kiln stack is designed to the following specifications:

- | | |
|------------------------------|-------------------------------------|
| Height | 74 feet |
| Exit diameter | 7.0 feet by 4.0 feet |
| Average volumetric flow rate | 70,973 actual cubic feet per minute |
| Exit temperature | 300 to 450°F |

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

#1 and #2 Rotary Kilns

2. EMISSION LIMITS

2.1 #1 Kiln and #2 Kiln (Requirements for each kiln)

- 2.1.1 Emissions of particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) (IDAPA 16.01.01.006.71), sulfur dioxide (SO₂), oxides of nitrogen (NO_x), volatile organic compounds (VOCs), total lead, and benzo(a)pyrene (BAP) shall not exceed any corresponding emission limit listed in Appendix A.
- 2.1.2 Carbon monoxide (CO) emissions shall not exceed any corresponding emission limit listed in Appendix A.
- 2.1.3 Visible emissions shall not exceed twenty (20) percent opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required in IDAPA 16.01.01.625. Opacity will be determined using DEQ's "Procedures Manual for Air Pollution Control."

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of operating parameters for #1 and #2 kilns. The following operating parameters shall be monitored and recorded while each kiln is operating:
 - 3.1.1 Daily summary of the amount of material fed to each kiln (dry basis); and,
 - 3.1.2 Daily summary of the type and amount of fuels used.
- 3.2 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of operating parameters for each field in each chamber of the #1 and #2 kiln ESPs. The following operating parameters shall be monitored and recorded once per day while each kiln is operating:
 - 3.2.1 Primary voltage;
 - 3.2.2 Primary current;
 - 3.2.3 Secondary voltage;
 - 3.2.4 Secondary current;
 - 3.2.5 Pressure drop;
 - 3.2.6 Rapper intensity and frequency; and
 - 3.2.7 The time when these parameters were monitored.

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SOURCE

#1 and #2 Rotary Kilns

3.3 When used oil is being used as fuel, the Permittee shall have the used oil certified by the supplier and abide by the record keeping and analytical requirements, as referenced under 40 CFR 279.

3.4 When coal is being used as fuel, the Permittee shall have the coal sampled and analyzed by the supplier for total sulfur and shall maintain records of this data on a monthly basis.

3.5 The Permittee shall conduct a performance test on Kiln #1 exhaust stack to verify compliance with visible emissions, total particulate matter (PM), VOC, and CO emission limits in Section 2 of this permit. The amount of whole tire/tire derived fuel combusted shall be measured to demonstrate compliance with Section 4.1.5.1 of this permit.

3.5.1 The following operating data shall be recorded during the performance test:

- 3.5.1.1 Amount of material fed (dry basis);
- 3.5.1.2 Type and amount of fuels used; and
- 3.5.1.3 Multiclone pressure drop.

3.5.2 During the performance test, the following operating parameters for each field in each chamber of the #1 ESP shall be recorded:

- 3.5.2.1 Primary voltage;
- 3.5.2.2 Primary current;
- 3.5.2.3 Secondary voltage;
- 3.5.2.4 Secondary current;
- 3.5.2.5 Pressure drop; and
- 3.5.2.6 Rapper intensity and frequency.

4. OPERATING REQUIREMENTS

4.1 Fuel Usage

4.1.1 The #1 and #2 kilns shall burn coal, natural gas, whole tire/tire derived fuel, petroleum coke, and used oil which meet the requirements of 40 CFR 279.

4.1.2 Fuel usage, based on fuel heat content, shall be limited to ninety-six (96) million BTU per hour (MMBTU/hr) or 797,000 MMBTU per yr (MMBTU/yr) for the #1 kiln, and to 113 MMBTU/hr or 938,000 MMBTU/yr the #2 kiln per applicants submittal.

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SOURCE

#1 and #2 Rotary Kilns

4.1.3 Coal which is burned in the #1 and #2 kilns shall contain no greater than one percent (1%) sulfur by weight in accordance with IDAPA 16.01.01355.

4.1.4 Used oil which is burned in the #1 and #2 kilns shall not exceed twenty five percent (25%) of the kilns' fuel requirement on a BTU basis.

4.1.5 Whole tire/tire derived fuel burned in the kilns shall not exceed the following quantity:

4.1.5.1 Twenty-five percent (25%) of the #1 kiln's fuel requirement on a BTU basis, or the percentage of whole tire/TDF burned during the source test conducted to demonstrate compliance with the Section 3.5 of this permit.

4.1.5.2 Twenty-five percent (25%) of the #2 kiln's fuel requirement on a BTU basis.

4.1.6 Used oil and whole tire/tire derived fuel shall not be burned in a kiln while the kiln's ESP is not operating.

4.1.7 Test burns shall be required should the permittee propose to combust used oil or whole tire/tire derived fuel at rates greater than those stated in Sections 4.1.4 and 4.1.5. DEQ approval shall be required prior to conducting test burns at fueling rates which exceed permitted rates.

4.2 Process Rates

4.2.1 The #1 kiln shall process no more than twelve point five (12.5) tons of clinker per hour, and the #2 kiln shall process no more than sixteen point seven (16.7) tons of clinker per hour on an average annual basis.

5. REPORTING REQUIREMENTS

5.1 The Permittee shall submit a test protocol for the performance test for kiln #1 required in Section 3.5 of this permit to the Department for approval at least thirty (30) days prior to the test date. The performance test reports shall be submitted to EPA, Region X, and the Department within forty-five (45) days of the date on which the performance tests are conducted.

5.2 The Permittee shall record, in a monthly report, the information requested in Sections 3.1, 3.2, 3.3, and 3.4 of this permit. This report shall be maintained on file by the Permittee for a two (2) year minimum and made available to DEQ representatives upon request.

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SOURCE

#1 and #2 Clinker Coolers and Clinker Handling System

1. SOURCE DESCRIPTION

1.1 Process Description

The #1 and #2 clinker coolers reduce the temperature of clinker received from the #1 and #2 kilns by air cooling. The clinker handling system transfers clinker from the #1 and #2 clinker coolers to the craneway storage area, clinker storage area, and clinker storage silos. The clinker handling system can also transfer clinker from the #2 drag chain by an alternate process route that directs the clinker to the auxiliary drag chain and into the track bin. From the track bin, the clinker is transferred to the crane and onto the craneway storage area, clinker storage area, and clinker storage silos.

1.2 Control Description

Emissions associated with all clinker transfer points from #1 kiln to the #1 drag chain and from the #2 kiln to the #2 drag chain are controlled by being enclosed and is under negative pressure being vented through the kiln. Emissions associated with all clinker transfer points from #2 drag chain to the crane, including emissions from the auxiliary drag chain and the track bin, are controlled by being enclosed and by a baghouse. Emissions associated with the transfer of clinker from the #1 drag chain to the #3 drag chain are controlled by being enclosed and by a baghouse. Emission associated with all transfer points from #3 drag chain to the clinker bin are controlled by a baghouse. Emissions associated with the transfer of clinker from the #2 clinker elevator to the clinker storage silos by the #5 drag chain are controlled by an enclosure and a baghouse. Emissions associated with the transfer of clinker to the clinker storage area are controlled by a partial enclosure and by a baghouse. Emissions associated with the transfer of clinker to the craneway storage area by the crane are uncontrolled.

1.3 Equipment List

1.3.1	Clinker Cooler	#1
	Manufacturer:	Fuller
	Model:	522
1.3.2	Drag Chain #1	
1.3.3	Drag Chain #2	
1.3.4	Drag Chain #3	
1.3.5	#1 Clinker Elevator	
1.3.6	Plenum Box	
1.3.7	Clinker Bin	
1.3.8	Overhead Crane	
1.3.9	Drag Chain #4	
1.3.10	#2 Elevator	

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SOURCE

#1 and #2 Clinker Coolers and Clinker Handling System

- 1.3.11 Drag Chain #5
- 1.3.12 Clinker Silo #1
- 1.3.13 Clinker Silo #2
- 1.3.14 Clinker Silo #3
- 1.3.15 Baghouse 1
 - Manufacturer: Mikro D Pulsair
 - Model: 30-8
 - Air-to-Cloth Ratio: 4.00
 - Pressure Drop: 4.00 inches H₂O
- 1.3.16 Baghouse 2
 - Manufacturer: ICA
 - Model: 2-800AE
 - Air-to-Cloth Ratio: 4.00
 - Pressure Drop: 4.00 inches H₂O
- 1.3.17 Baghouse 3
 - Manufacturer: Sly Pactecon
 - Model: PC 106
 - Efficiency: 95%
- 1.3.18 Auxiliary Track Bin
- 1.3.19 Track Bin

2. EMISSION LIMITS

2. Baghouses BH1, BH2, BH3

- 2.1.1 Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) particle matter from BH1, BH2, and BH3 shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed for each in Appendix A of this permit.
- 2.1.2 Visible emissions from each baghouse stack listed in Section 1.3 shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required in IDAPA 16.01.01.625 and as determined using DEQ's "Procedures Manual for Air Pollution Control."

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SOURCE

#1 and #2 Clinker Coolers and Clinker Handling System

2.2 Fugitive Emissions

2.2.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record the pressure drop across each baghouse weekly, and visual observation daily.

3.2 The Permittee shall record the amount of clinker produced by each kiln daily.

4. OPERATING REQUIREMENTS

4.1 Process Rates

4.1.1 The clinker coolers shall process no more than the average monthly or annual production of the kilns.

4.2 Baghouse Specifications

Each baghouse shall be operated and maintained in accordance with the manufacturer's recommendations. All manufacturer's specifications and operating instructions shall be kept on site as long as each baghouse is operated and shall be made available to DEQ representatives upon request.

4.3 Baghouse Pressure Drop

The pressure drop across each baghouse shall remain within the baghouse manufacturer's recommendations.

5. REPORTING REQUIREMENTS

5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1 and 3.2 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

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The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Clinker Reclaim

1. SOURCE DESCRIPTION

1.1 Process Description

The clinker reclaim process transfers clinker from the craneway storage area, clinker storage area, and clinker storage silos to the #1, #2, and #3 clinker feed bins.

1.2 Control Description

Emissions associated with the transfer of clinker from craneway storage to the #1, #2, and #3 clinker feed bins by the crane are controlled by being located in a building with open ends. Emissions associated with the transfer points from the clinker storage area, and from the clinker silos #1-#3, to the #3 clinker reclaim belt, including transfers to and from the #1 and #2 clinker reclaim belts, are controlled by an enclosure and two baghouses (BH3 and BH4). Emissions associated with all clinker transfer points from the #3 reclaim belt to the #1, #2, and #3 clinker feed bins, including transfers to and from the #3 clinker elevator and the clinker drag chain are controlled by BH6.

1.3 Equipment List

1.3.1 Clinker Reclaim Belt #1

1.3.2 Clinker Reclaim Belt #2

1.3.3 Clinker Reclaim Belt #3

1.3.4 #3 Elevator

1.3.5 Clinker Drag Chain

1.3.6 Baghouse 4 (BH4)

Manufacturer: Mikro D Pulsair

Model: 36 S8 20

Efficiency: 95%

Air-to-Cloth Ratio: 3.51

1.3.7 Baghouse 6 (BH6)

Manufacturer: Buell Norblo

Model: 390AM Series 39

Efficiency: 95%

Air-to-Cloth Ratio: 1.87

1.3.8 Baghouse 3 (BH3)

(For specifications, see #1 & #2 Clinker Coolers and Clinker Handling, Section 1.3.17)

2. EMISSION LIMITS

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMITTEE AND LOCATION

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PM10 SIP Operating Permit
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The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Clinker Reclaim

2. BH3, BH4, and BH6

2.1.1 Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) particle matter from BH3, BH4, and BH6 stacks shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed for each in Appendix A of this permit.

2.1.2 Visible emissions from each baghouse stack shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required in IDAPA 16.01.01.625 and as determined using DEQ's "Procedures Manual for Air Pollution Control."

2. Fugitive Emissions

2.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record the pressure drop across BH4 and BH6 baghouse weekly and visual observations daily.

4. OPERATING REQUIREMENTS

4.1 Process Rate

The three (3) clinker feed bins shall process no more than forty-eight (48) tons per hour on a monthly basis or 429, 216 tons per year.

4.2 Baghouse Specifications

Each baghouse shall be operated and maintained in accordance with the manufacturer's recommendations. All manufacturer's specifications and operating instructions for each baghouse shall be kept on site as long as each baghouse is operated and shall be made available to DEQ representatives upon request.

4.3 Baghouse Pressure Drop

The pressure drop across each baghouse shall remain within the baghouse manufacturer's recommendations.

5. REPORTING/RECORDKEEPING REQUIREMENTS

5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1 and 3.2 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

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The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Finish Grinding and Associated Handling

1. SOURCE DESCRIPTION

1.1 Process Description

The finish grinding Mills #1, #2, and #3 process clinker and gypsum into cement. The mills receive material from the clinker bins and the gypsum bin by conveyor. The two materials are ground, and conveyed by the elevator to the separator. (The #1 and #2 Mills go to the #1 Separator, and the #3 Mill uses the #2 Separator). The separator removes oversized particles and reintroduces them to the mill, and transfers the cement of appropriate size to the cement cooler. The #1 and #2 mills utilize two (2) cement coolers in series (#1 and #2) the #3 mill has it's own cement cooler, (#3). Cement is transferred from the cement cooler by FK pump to one of nineteen (19) storage silos.

1.2 Control Description

Emissions associated with the transfer of material to and from the following:

Mill #1 and Mill #2,
#1 Cement Elevator,
#1 Separator
#1 and #2 Cement Coolers (in series)

are controlled by Baghouse 5 (BH5) and through enclosure in a building. Emissions associated with the transfer of gypsum to the crane and onto the gypsum feeder are controlled only by an enclosure. Emissions associated with the transfer of material to and from the following:

Mill #3;
#2 Cement Elevator;
#2 Separator; and
(#3) Cement Cooler

are controlled by BH6 and through enclosure in a building. Emissions associated with the transfer of cement to cement silos #1 through #14 are controlled by BH7. Emissions associated with the transfer of cement to cement silos #21 through #25 are controlled by BH3.

1.3 Equipment List

1.3.1	Mill #1	
	Manufacturer:	FL Smidth
	Model :	2411 Unidan
1.3.2	Mill #2	
	Manufacturer:	FL Smidth
	Model :	2411 Unidan

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SOURCE

Finish Grinding and Associated Handling

- 1.3.3 Separator #1
 - Manufacturer: Raymond
 - Model: NC 4534
- 1.3.4 Mill #3
 - Manufacturer: FL Smidth
 - Model : 2411 Unidan
- 1.3.5 Separator #1
 - Manufacturer: Sturtevant
 - Model: 14 AS
- 1.3.6 Baghouse 5 (BH5)
 - Manufacturer: Buell Norblo
 - Model: BA 2 Size 312A
 - Air-to-Cloth Ratio: 1.91
 - Pressure Drop: 5.00 inches H₂O
- 1.3.7 Baghouse 6 (BH6)
 - (for specifications see Clinker Reclaim, Section 1.3.7)
- 1.3.8 Baghouse 7 (BH7)
 - Manufacturer: Pangborn
 - Model: C 160 CM
 - Air-to-Cloth Ratio: 1.74

2. EMISSION LIMITS

2.1 Baghouses BH5, BH6, BH7

- 2.1.1 Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) from BH5, BH6, and BH7 shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed for each in Appendix A of this permit.
- 2.1.2 Visible emissions from each baghouse stack that is listed in Section 1.3 shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required in IDAPA 16.01.01.625 and as determined using DEQ's "Procedures Manual for Air Pollution Control."

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SOURCE

Finish Grinding and Associated Handling

2.2 Fugitive Emissions

2.2.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record the pressure drop across BH5 and BH7 weekly and visual observations daily.

3.2 The Permittee shall record the amount of cement processed by each mill daily.

4. OPERATING REQUIREMENTS

4.1 Process Rates

4.1.1 Each of three (3) finish mills shall process no more than twenty-six (26) tons of material per hour on a daily average basis, twenty (20) tons per hour on a monthly average basis, and 175,200 tons of total cement.

4.2 Baghouse Specifications

Each baghouse shall be operated and maintained in accordance with the manufacturer's recommendations. All manufacturer's specifications and operating instructions for each baghouse shall be kept on site as long as each baghouse is operated and shall be made available to DEQ representatives upon request.

4.3 Baghouse Pressure Drop

The pressure drop across each baghouse shall remain within the baghouse manufacturer's recommendations.

5. REPORTING REQUIREMENTS

5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1 and 3.2 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

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SOURCE

Cement Loadout

1. SOURCE DESCRIPTION

1.1 Process Description

Cement is transferred from storage silos to railcar, truck, or packaging by a combination of screws, airslides, and elevators.

1.2 Control Description

Emissions associated with truck loadout and truck loading tanks A, B, and C/D and the transfer points within those parameters are controlled by BH 8. All other cement activity between the FK pumps and truck loading tanks are controlled by enclosure and Baghouse #7.

1.3. Equipment List

1.3.1 Baghouse 7 (For specifications, see Finish Grinding 1.3)

1.3.2 Baghouse 8

Manufacturer: Mikro Pulsaire

Model: Type 30 8

Air-to-Cloth Ratio: 2.68

2. EMISSION LIMITS

2.1 Baghouse 8 (BH8) and Baghouse 7 (BH7)

2.1.1 Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) particle matter from BH7 and BH8 shall not exceed the amount the pound per hour (lb/hr) or ton per year (T/yr) values listed for each in Appendix A of this permit.

2.1.2 Visible emission from BH8 stack shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required in IDAPA 16.01.01.625 and as determined using DEQ's "Procedures Manual for Air Pollution Control."

2.2 Fugitive Emissions

2.2.1 Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

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SOURCE

Coal Handling

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall record the pressure drop, in inches of water, of BH8 weekly and visual observations daily.
- 3.2 The Permittee shall record the daily amount of cement, in tons, transferred from rail loadout.
- 3.3 The Permittee shall record the daily amount of cement, in tons, transferred from truck loadout.
- 3.4 The Permittee shall record the daily amount of cement shipped in bags in tons.

4. OPERATING REQUIREMENTS

4.1 Loadout Rates

- 4.1.1 Rail loadout shall handle no more than seventy-five (75) tons of cement per hour.
- 4.1.2 Truck loadout shall handle no more than seventy-five (75) tons of cement per hour.
- 4.1.3 The shall handle no more than seventy-five (75) tons of cement per hour.
- 4.1.4 No more than 370,000 tons of cement on an average annual basis will be shipped from the Ash Grove facility.

4.2 Baghouse Specifications

BH8 shall be operated and maintained in accordance with the manufacturer's recommendations. All manufacturer's specifications and operating instructions for BH8 shall be kept on site as long as it is operated and shall be made available to DEQ representatives upon request.

4.3 Baghouse Pressure Drop

The pressure drop across BH8 shall remain within the baghouse manufacturer's recommendations.

5. REPORTING/RECORDKEEPING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1, 3.2, 3.3, 3.4, and 3.5 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

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SOURCE

Coal Handling

1. SOURCE DESCRIPTION

1.1 Process Description

Coal handling involves the receiving, handling, processing and storage of coal.

1.2 Control Description

Emissions associated with the transfer points from the dumping of coal to the coal elevator, including transfers to and from the coal hopper, coal belt, and coal elevator, are uncontrolled. Emissions associated with all transfers points from the coal silo to the #2 coal mill, including transfers to and from the #1 and #2 coal mills, are controlled by being enclosed.

1.3 Equipment List

1.3.1	Coal Mill #1	
	Manufacturer:	Raymond
	Model:	442
1.3.2	Coal Mill #2	
	Manufacturer:	Raymond
	Model:	423A

2. EMISSION LIMITS

2.1 Fugitive Emissions

Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record, in tons per hour (T/hr) and tons per year (T/yr), the amount of coal burned in the kiln systems.

4. OPERATING REQUIRMENTS

4.1 The coal hopper shall handle no more than 280 tons of coal per hour on an average hourly basis and 70,000 tons of coal per year.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Coal Handling

5. REPORTING/RECORDKEEPING REQUIREMENTS

- 5.1 The Permittee shall record, in a daily report, the information requested in Section 3.1 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Cement Kiln Dust Handling (CKD)

1. SOURCE DESCRIPTION

1.1 Process Description

Cement kiln dust handling involves the transfer of cement kiln dust (CKD) from the #1 kiln multiclone and ESP and the #2 kiln multiclone and ESP to CKD waste storage, leaching tank, and #1 and #2 paddle mixer screw.

1.2 Control Description

Emissions associated with the transfer of CKD by the loader are uncontrolled. Emissions associated with the transfer of CKD from the kiln multiclone to the screw, from the screw to the elevator, and from the elevator to a second screw are controlled by being enclosed.

2. EMISSION LIMITS

2.1 Fugitive Emissions

Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record the amount, in tons per day, of CKD transferred to CKD waste storage.

4. OPERATING REQUIREMENTS

4.1 CKD waste storage shall receive no more than twenty (20) tons of CKD per hour and 5000 tons of CKD per year.

5. REPORTING REQUIREMENTS

5.1 The Permittee shall record, in a daily report, the information requested in Sections 3.1, 3.2, and 3.3 of this permit. These records shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
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Inkom, Idaho

005 - 00004

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Unpaved Roads

1. SOURCE DESCRIPTION

1.1 Process Description

Routine vehicular traffic on unpaved roads

1.2 Control Description

Unpaved roadways are water sprayed on a regular basis.

2. EMISSION LIMITS

2.1 Fugitive Emissions

Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. MONITORING REQUIREMENTS

3.1 The Permittee shall record on a bi-annual basis the number of applications of chemical dust suppressants on unpaved roads.

4. OPERATING REQUIREMENTS

4.1 At all times, fugitive emissions shall be reasonably controlled by, but not limited to, the following methods, and as required in IDAPA 16.01.01.650 and 651.

4.1.1 Using water sprays, chemicals, and dust suppressants on the plant property and unpaved roads.

5. REPORTING REQUIREMENTS

5.1 The Permittee shall record, in a daily report, the information requested in Section 3.1 of this permit. This report shall be maintained on file by the Permittee for a minimum period of two years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

PERMITTEE AND LOCATION

Ash Grove Cement Company
PM10 SIP Operating Permit
Inkom, Idaho

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The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Paved Roads

1. SOURCE DESCRIPTION

1.1 Process Description

Routine vehicular traffic on paved plant roads.

1.2 Control Description

Paved roadways in the plant are cleaned by a street sweeper on a regular basis.

2. EMISSION LIMITS

2.1 Fugitive Emissions

Fugitive emissions of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM-10) shall be reasonably controlled, as required in IDAPA 16.01.01.650 and 651, and shall not exceed the pound per hour (lb/hr) or ton per year (T/yr) values listed in Appendix B of this permit.

3. OPERATING REQUIREMENTS

4.1 At all times, fugitive emissions shall be reasonably controlled by, but not limited to, the following methods, and as required in IDAPA 16.01.01.650 and 651.

4.1.1 Routinely cleaning and maintaining all paved roads.

4. REPORTING REQUIREMENTS

5.1 The Permittee shall record, in a daily report, the information requested in Section 3.1 of this permit. This report shall be maintained on file by the Permittee for a minimum period of two (2) years and made available to DEQ representatives upon request.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

APPENDIX A

Ash Grove Cement, Inkorn

Emission Limits ^a -- Hourly (lb/hr) and Annual ^b (ton/yr)

SOURCE DESCRIPTION	PM		PM ₁₀		SO ₂		NO _x		VOC		CO		TOTAL LEAD		BAP	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Kiln #1	11.61	50.83	9.86	43.21	24	100	144	576	5.92	25.9	234.4	937.7	0.27	1.08	8.5E-03	3.4E-02
Kiln #2	16.87	73.91	14.34	62.82	24	100	193	751	6.96	30.5	275.8	1103.2	0.31	1.24	1.0E-02	4.0E-2
Baghouse #1 (BH1)	0.65	2.78	0.54	2.32												
Baghouse #2 (BH2)	0.94	4.03	0.70	3.36												
Baghouse #3 (BH3)	0.91	3.19	0.62	2.16												
Baghouse #4 (BH4)	0.19	0.67	0.13	0.46												
Baghouse #5 (BH5)	2.11	6.95	1.35	4.45												
Baghouse #6 (BH6)	2.77	9.15	1.78	5.86												
Baghouse #7 (BH7)	0.39	1.35	0.26	0.91												
Baghouse #8 (BH8)	3.53	12.34	2.39	8.38												

Scientific notation is represented with "E"s. 1.0E-4 equals 1.0x10⁻⁴ or 0.0001.

- ^a As determined by a pollutant specific U.S. EPA reference method, DEQ approved alternative, or as determined by DEQ's emission estimation methods used in this permit analysis.
- ^b As determined by multiplying the actual or allowable (if actual is not available) pound per hour (lb/hr) emission rate by the allowable hours per year that the process(es) operate, or by actual annual production.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

APPENDIX B

Ash Grove Cement, Inkom

Fugitive Emission Limits ^a -- Hourly (lb/hr) and Annual ^b (ton/yr)

Source Description	PM		PM ₁₀		SO ₂		NO _x		VOC		CO		TOTAL LEAD		BAP	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
Drilling, Blasting, Dozing	5.39	29.34	1.78	3.09												
Limestone Receiving, Crushing, and Storage	18.1	16.87	8.07	7.46												
Iron Ore Receiving, Crushing, and Storage	3.48	0.67	1.37	0.30												
Silica Receiving, Crushing, and Storage	9.08	1.99	4.04	0.89												
Gypsum Receiving, Crushing, and Storage	18.17	1.18	8.14	0.54												
Storage Piles	5.39	33.25	1.78	3.29												
Silo Withdrawal, Conveying, and Storage	0.35	1.48	0.16	0.68												
#1 & #2 Clinker Coolers and Clinker Handling System	49.06	88.20	24.40	43.54												
Clinker Reclaim	6.43	28.15	3.21	14.07												
Finish Grinding And Associated Handling	2.52	3.46	1.21	1.58												
Cement Loadout	6.69	5.02	3.35	2.51												
Coal Handling	5.61	0.74	1.40	0.18												
Cement Kiln Dust Handling	1.81	1.59	0.90	0.80												
Unpaved Roads	19.97	16.58	7.19	5.97												
Paved Roads	46.52	16.12	10.01	3.47												

- a As determined from DEQ's emission estimation methods used in Ash Grove Cement Tier II operating permit application analysis.
- b As determined by multiplying the actual or allowable (if actual is not available) pound per hour (lb/hr) emission rate by the allowable hours per year that the process(es) operate, or by actual annual production.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

OPERATING PERMIT GENERAL PROVISIONS

- A. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code 39-101 et. seq.
- B. The Permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
- C. The Permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:
- 1) To enter upon the Permittee's premises where an emission source is located, or in which any records are required to be kept under the terms and conditions of this permit; and
 - 2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and to require stack emission testing (i.e., performance tests) in conformance with state approved or accepted EPA procedures when deemed appropriate by the Director.
- D. Except for data determined to be confidential under Section 39-111, Idaho Code, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate regional office of the Division of Environmental Quality.
- E. Nothing in this permit is intended to relieve or exempt the Permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- F. In the event of any change in control or ownership of source(s) from which the authorized emissions emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Director.
- G. This permit shall be renewable on the expiration date, provided the Permittee submits any and all information necessary for the Director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within sixty (60) days after receipt of the Director's request shall cause the permit to be voided.
- H. The Director may require the Permittee to develop a list of Operation and Maintenance Procedures which must be approved by the Department. Such list of procedures shall become a part of this permit by reference, and the Permittee shall adhere to all of the operation and maintenance procedures contained therein.

ISSUED: June 30, 1995
EXPIRES: June 30, 2000

- I. The Permittee shall provide the Department a minimum of thirty (30) days notice prior to the scheduled date of any performance test required pursuant to this permit. Such testing must strictly adhere to the procedures outlined in the Department's Procedures Manual for Air Pollution Control, and will not be conducted on weekends or state holidays, unless the Permittee obtains prior Department approval. Testing procedures and specific time limitations may be modified by the Department by prior negotiation if conditions warrant adjustment.

The Permittee shall promptly notify the Department of any change in the testing schedule and shall provide at least five (5) working days notice prior to conducting any rescheduled test, unless the Department approves a shorter advanced notice period. Any records or data generated as a result of such performance tests shall be made available to the Department upon request.

The performance tests will be performed at the maximum production rate unless otherwise is specifically stated elsewhere in this Operating Permit. If this maximum rate is not achieved during testing, the allowable production rate will be limited to the production rate attained during testing.

- J. The provisions of this permit are severable; and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
- K. Operation information shall include daily and annual hours of operation and process throughput rate(s) as applied to development of permit conditions.

ISSUED: June 30, 1995 EXPIRES: June 30, 2000
